

SEQUENCE LISTING

<110> Helix Research Institute

<120> FATTY ACID TRANSPORTER PROTEINS AND THE GENES ENCODING THE PROTEINS

<130> H1-106DP3PCT

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<150> JP 1999-194179

<151> 1999-07-08

<150> JP 2000-128993

<151> 2000-04-25

<150> US 60/159586

<151> 1999-10-18

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<170> PatentIn Ver. 2.0

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<212> DNA

<213> Homo sapiens

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Met Gly Val Cys Gln Arg Thr Arg Ala Pro Trp Lys Glu Lys Ser Gln
1 5 10 15
cta gaa cga gcg gcc cta ggt ttt cgg aag gga gga tca ggg atg ttt 154
Leu Glu Arg Ala Ala Leu Gly Phe Arg Lys Gly Gly Ser Gly Met Phe
20 25 30
gcg agc ggc tgg aac cag acg gtg ccg ata gag gaa gcg ggc tcc atg 202
Ala Ser Gly Trp Asn Gln Thr Val Pro Ile Glu Glu Ala Gly Ser Met
35 40 45
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Leu Lys Leu His Leu Trp Pro Gln Leu Arg Trp Leu Pro Ala Asp Leu	
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Ala Phe Ala Val Arg Ala Leu Cys Cys Lys Arg Ala Leu Arg Ala Arg	
85 90 95	
gcc ctg gcc gcg gct gcc gcc gac ccg gaa ggt ccc gag ggg ggc tgc	394
Ala Leu Ala Ala Ala Ala Ala Asp Pro Glu Gly Pro Glu Gly Gly Cys	
100 105 110	
agc ctg gcc tgg cgc ctc gcg gaa ctg gcc cag cag cgc gcc gcg cac	442
Ser Leu Ala Trp Arg Leu Ala Glu Leu Ala Gln Gln Arg Ala Ala His	
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Thr Phe Leu Ile His Gly Ser Arg Arg Phe Ser Tyr Ser Glu Ala Glu	
130 135 140	
cgc gag agt aac agg gct gca cgc gcc ttc cta cgt gcg cta ggc tgg	538
Arg Glu Ser Asn Arg Ala Ala Arg Ala Phe Leu Arg Ala Leu Gly Trp	
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Asp Trp Gly Pro Asp Gly Gly Asp Ser Gly Glu Gly Ser Ala Gly Glu	
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Gly Glu Arg Ala Ala Pro Gly Ala Gly Asp Ala Ala Ala Gly Ser Gly	
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Ala Glu Phe Ala Gly Gly Asp Gly Ala Ala Arg Gly Gly Gly Ala Ala	
195 200 205	
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Pro Glu Phe Leu Trp Leu Trp Phe Gly Leu Ala Lys Ala Gly Leu Arg	

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Thr Ala Phe Val Pro Thr Ala Leu Arg Arg Gly Pro Leu Leu His Cys				
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Glu Ser Leu Glu Pro Asp Leu Pro Ala Leu Arg Ala Met Gly Leu His				
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Val Ile Tyr Leu Ala Leu Pro Leu Tyr His Met Ser Gly Ser Leu Leu				
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Lys Phe Ser Ala Gly Gln Phe Trp Glu Asp Cys Gln Gln His Arg Val				
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Thr Val Phe Gln Tyr Ile Gly Glu Leu Cys Arg Tyr Leu Val Asn Gln	
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Pro Pro Ser Lys Ala Glu Arg Gly His Lys Val Arg Leu Ala Val Gly	
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Ser Gly Leu Arg Pro Asp Thr Trp Glu Arg Phe Val Arg Arg Phe Gly	
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Leu Tyr Lys His Ile Phe Pro Phe Ser Leu Ile Arg Tyr Asp Val Thr	
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Thr Gly Glu Pro Ile Arg Asp Pro Gln Gly His Cys Met Ala Thr Ser	
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Pro Gly Glu Pro Gly Leu Leu Val Ala Pro Val Ser Gln Gln Ser Pro	
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Phe Leu Gly Tyr Ala Gly Gly Pro Glu Leu Ala Gln Gly Lys Leu Leu	
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Lys Asp Val Phe Arg Pro Gly Asp Val Phe Phe Asn Thr Gly Asp Leu	
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Leu Val Cys Asp Asp Gln Gly Phe Leu Arg Phe His Asp Arg Thr Gly	
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Asp Thr Phe Arg Trp Lys Gly Glu Asn Val Ala Thr Thr Glu Val Ala	
595 600 605	

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 Val Thr Val Pro Gly His Glu Gly Arg Ala Gly Met Ala Ala Leu Val
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 660 665 670

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 Glu Ser Leu Ala Thr Thr Glu Thr Phe Lys Gln Gln Lys Val Arg Met
 675 680 685

gca aat gag ggc ttc gac ccc agc acc ctg tct gac cca ctg tac gtt 2170
 Ala Asn Glu Gly Phe Asp Pro Ser Thr Leu Ser Asp Pro Leu Tyr Val
 690 695 700

ctg gac cag gct gta ggt gcc tac ctg ccc ctc aca act gcc cgg tac 2218
 Leu Asp Gln Ala Val Gly Ala Tyr Leu Pro Leu Thr Thr Ala Arg Tyr
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agc gcc ctc ctg gca gga aac ctt cga atc tgagaacttc cacacctgag 2268
 Ser Ala Leu Leu Ala Gly Asn Leu Arg Ile
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gcacctgaga gaggaactct gtggggtggg ggccgttgca ggtgtactgg gctgtcaggg 2328

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<213> Homo sapiens

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 35 40 45

Ala Ala Leu Leu Leu Leu Pro Leu Leu Leu Leu Leu Pro Leu Leu Leu
 50 55 60

Leu Lys Leu His Leu Trp Pro Gln Leu Arg Trp Leu Pro Ala Asp Leu
 65 70 75 80

Ala Phe Ala Val Arg Ala Leu Cys Cys Lys Arg Ala Leu Arg Ala Arg
 85 90 95

Ala Leu Ala Ala Ala Ala Ala Asp Pro Glu Gly Pro Glu Gly Gly Cys
 100 105 110

Ser Leu Ala Trp Arg Leu Ala Glu Leu Ala Gln Gln Arg Ala Ala His
 115 120 125

Thr Phe Leu Ile His Gly Ser Arg Arg Phe Ser Tyr Ser Glu Ala Glu
 130 135 140

Arg Glu Ser Asn Arg Ala Ala Arg Ala Phe Leu Arg Ala Leu Gly Trp
 145 150 155 160

Asp Trp Gly Pro Asp Gly Gly Asp Ser Gly Glu Gly Ser Ala Gly Glu
 165 170 175

Gly Glu Arg Ala Ala Pro Gly Ala Gly Asp Ala Ala Ala Gly Ser Gly
 180 185 190

Ala Glu Phe Ala Gly Gly Asp Gly Ala Ala Arg Gly Gly Gly Ala Ala
 195 200 205

Ala Pro Leu Ser Pro Gly Ala Thr Val Ala Leu Leu Leu Pro Ala Gly
 210 215 220

Pro Glu Phe Leu Trp Leu Trp Phe Gly Leu Ala Lys Ala Gly Leu Arg
 225 230 235 240

Thr Ala Phe Val Pro Thr Ala Leu Arg Arg Gly Pro Leu Leu His Cys
 245 250 255

Leu Arg Ser Cys Gly Ala Arg Ala Leu Val Leu Ala Pro Glu Phe Leu
 260 265 270

Glu Ser Leu Glu Pro Asp Leu Pro Ala Leu Arg Ala Met Gly Leu His
 275 280 285

Leu Trp Ala Ala Gly Pro Gly Thr His Pro Ala Gly Ile Ser Asp Leu
 290 295 300

Leu Ala Glu Val Ser Ala Glu Val Asp Gly Pro Val Pro Gly Tyr Leu
 305 310 315 320

Ser Ser Pro Gln Ser Ile Thr Asp Thr Cys Leu Tyr Ile Phe Thr Ser
 325 330 335

Gly Thr Thr Gly Leu Pro Lys Ala Ala Arg Ile Ser His Leu Lys Ile
 340 345 350

Leu Gln Cys Gln Gly Phe Tyr Gln Leu Cys Gly Val His Gln Glu Asp
 355 360 365

Val Ile Tyr Leu Ala Leu Pro Leu Tyr His Met Ser Gly Ser Leu Leu
 370 375 380

Gly Ile Val Gly Cys Met Gly Ile Gly Ala Thr Val Val Leu Lys Ser
 385 390 395 400

Lys Phe Ser Ala Gly Gln Phe Trp Glu Asp Cys Gln Gln His Arg Val
 405 410 415

Thr Val Phe Gln Tyr Ile Gly Glu Leu Cys Arg Tyr Leu Val Asn Gln
 420 425 430

Pro Pro Ser Lys Ala Glu Arg Gly His Lys Val Arg Leu Ala Val Gly
 435 440 445

Ser Gly Leu Arg Pro Asp Thr Trp Glu Arg Phe Val Arg Arg Phe Gly
 450 455 460

Pro Leu Gln Val Leu Glu Thr Tyr Gly Leu Thr Glu Gly Asn Val Ala
 465 470 475 480

Thr Ile Asn Tyr Thr Gly Gln Arg Gly Ala Val Gly Arg Ala Ser Trp
 485 490 495

Leu Tyr Lys His Ile Phe Pro Phe Ser Leu Ile Arg Tyr Asp Val Thr
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Thr Gly Glu Pro Ile Arg Asp Pro Gln Gly His Cys Met Ala Thr Ser
 515 520 525

Pro Gly Glu Pro Gly Leu Leu Val Ala Pro Val Ser Gln Gln Ser Pro
 530 535 540

Phe Leu Gly Tyr Ala Gly Gly Pro Glu Leu Ala Gln Gly Lys Leu Leu
 545 550 555 560

Lys Asp Val Phe Arg Pro Gly Asp Val Phe Phe Asn Thr Gly Asp Leu
 565 570 575

Leu Val Cys Asp Asp Gln Gly Phe Leu Arg Phe His Asp Arg Thr Gly
 580 585 590

Asp Thr Phe Arg Trp Lys Gly Glu Asn Val Ala Thr Thr Glu Val Ala
 595 600 605

Glu Val Phe Glu Ala Leu Asp Phe Leu Gln Glu Val Asn Val Tyr Gly
 610 615 620

Val Thr Val Pro Gly His Glu Gly Arg Ala Gly Met Ala Ala Leu Val
 625 630 635 640

Leu Arg Pro Pro His Ala Leu Asp Leu Met Gln Leu Tyr Thr His Val
 645 650 655

Ser Glu Asn Leu Pro Pro Tyr Ala Arg Pro Arg Phe Leu Arg Leu Gln
 660 665 670

Glu Ser Leu Ala Thr Thr Glu Thr Phe Lys Gln Gln Lys Val Arg Met
 675 680 685

Ala Asn Glu Gly Phe Asp Pro Ser Thr Leu Ser Asp Pro Leu Tyr Val
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Ser Ala Leu Leu Ala Gly Asn Leu Arg Ile
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<212> RNA

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<210> 6

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<212> DNA

<213> Artificial Sequence

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21

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<210> 12

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39